



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,471	05/30/2006	Colleen M. Kerkay	ERICP0344WOUS	9435
7590 Jonathan A Platt Renner Otto Boisselle & Sklar 1621 Euclid Avenue 19th Floor Cleveland, OH 44115			EXAMINER AMIRI, NAHID	
			ART UNIT 3679	PAPER NUMBER
			MAIL DATE 11/01/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/578,471

Applicant(s)

KERKAY, COLLEEN M.

Examiner

Nahid Amiri

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 12-14, 16, 18, 21-23, 25-29, 43, 44, and 47-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 12-14, 16, 18, 21-23, 25-29, 43, 44 and 47-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/24/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “**insert**”, line 2, the “**fastener**”, line 2, and “**toothed**” of the insert, line 4 of claim 23, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7, 12-14, 16, 18, 21-23, 25-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, at the outset, it should be noted that the preamble of claim 1 sets forth only a reinforcing bar splice subcombination, with intended use of for joining reinforcing bars. As initially set forth, the elements of the combination are not positively included in the claims. However, claim 1, lines 4, 6, and 7, positively includes the elements of the combination (e.g., the bars). Further, patentability determination is based on the reinforcing bar splice recited and not how the bar is intended to be used. Thus, it is structure of the reinforcing bar splice, alone, that is considered. Accordingly, it is unclear what elements set forth the structural limitation of the coupling device, and as to whether the combination or subcombination is being claimed. For this Office action, it is presumed that only the subcombination is being claimed.

Claim 12, line 3, There is no antecedent basis for "the bar ends".

Claim 22, line 2, There is no antecedent basis for "the insert".

Claim 23, line 2, There is no antecedent basis for "the fasteners".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

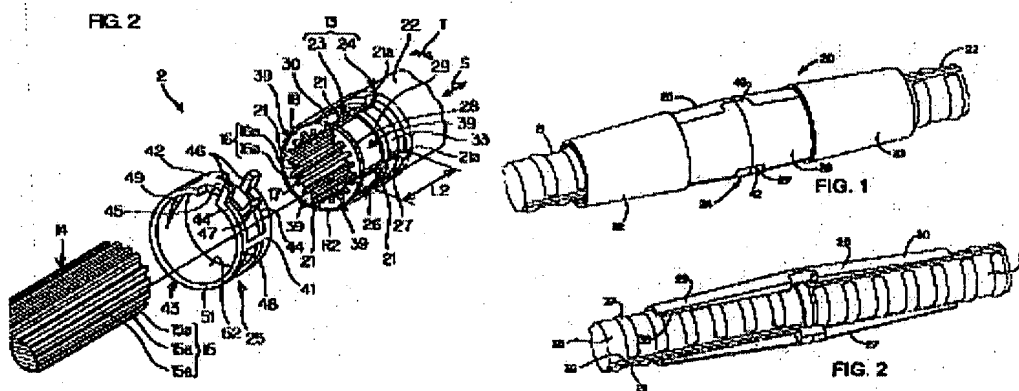
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 12-14, 16, 23, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 7,172,361 Minamoto et al. in view of US Patent No. 6,719,478 B2 Gregel et al.

With respect to claims 1 and 2, Minamoto et al. disclose (Fig 2) a splice per-se for joining reinforcing bar (14), a sleeve segment (39) having longitudinal integral ribs (16a)

Art Unit: 3679

deforming to conform to deformations on the reinforcing bar (14) when the sleeve segment (39) and the bar is relatively pressed together; and a clamp (25) operatively configured to relatively press the sleeve (39) and the reinforcing bar (14), and clamp (25) is also configured to press relatively smooth portions of the bar (14) into the ribs (16a). Minamoto et al. do not disclose that the sleeve segment conform to deformations on both bars. Gregel teach a joint (Figs. 1, 2) having a sleeve segment (25) conform to deformations on both bars (121, 22) and clamping members (32, 33) press the sleeve segment (25) and the bars (21, 22) together. It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the reinforcing bar of Minamoto et al. with a sleeve segment which conform to deformation of both bars as taught by Gregel in order to press the sleeve segment against the bars in secure manner.



With respect to claims 3-6, Minamoto et al. suggests (Fig. 2) that the ribs (16a) have rounded; and wherein troughs between the ribs (39) have proximal rounded corners; wherein the ribs (16a) are of substantially uniform width; wherein the ribs (16a) are enlarged at their distal ends.

With respect to claim 7, it should be noted that the claim is drawn solely to the splice. Therefore, it is improper for applicant to make material comparison between the ribs of the splice and unclaimed reinforcing bars.

With respect to claim 12, Minamoto et al. disclose (Fig. 2) that the clamp (25) includes a sleeve surrounding the bar (14); and wherein the sleeve segment (39) is placed between the sleeve and the bar ends.

With respect to claims 13 and 14, and 16, Minamoto et al. disclose the claimed invention except for the sleeve segment has a tapered outer surface; and wherein the sleeve is a tapered collar having a tapered inner surface for engaging the tapered outer surface of the sleeve segment; wherein the sleeve segment includes multiple sleeve segment sections hingedly coupled together; wherein the clamp includes an additional tapered collar. Gregel et al. teaches a reinforcing bar (Figs. 11, 12) including a sleeve (174) which has a tapered outer surface; and wherein the sleeve (174) is a tapered collar having a tapered inner surface for engaging the tapered outer surface of the sleeve segment (168); wherein the sleeve segment (168) includes multiple sleeve segment sections (168, 170) hingedly coupled together; wherein the clamp includes an additional tapered collar (170). It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the sleeve of Minamoto et al. with a tapered out surface and a tapered collar having a tapered inner surface and sleeve segment including multiple sleeve segments sections hingedly couple together; and the clamp having an additional tapered collar as taught by Gregel et al. in order to fit and hold the reinforcing bars into the sleeve segment in axially aligned manner.

With respect to claim 23, no art rejection can be apply at this time because any such rejection would require undue speculation as to meaning of the terms in the claims. Specifically, the recitation of the bolts are driven into an insert between the fasteners and the bars; and wherein the insert is a toothed insert having circumferential teeth for biting into the bars" is contradictory to even applicant's disclosure which fails to disclose any bolts driven into an insert between the fasteners and the bars.

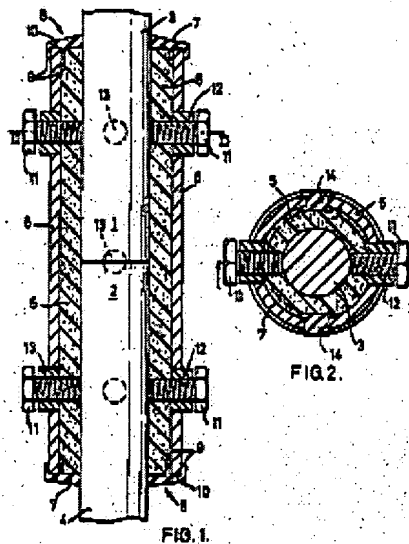
With respect to claim 28, Minamoto et al. disclose (Fig. 2) that the sleeve segment (39) is a part of a single-piece sleeve for surrounding the bar ends (13, 14).

Claims 18, 21, 22, 25, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minamoto et al. as applied to claims 1-7, 12-14, 16, 23, and 28 above, and further in view of US Patent No. 4,666,326 Hope.

With respect to claims 18, 21, 22, 25, and 29, Minamoto et al. disclose the claimed invention except that the clamp includes plural bolts that pass through threaded bolt holes in the

Art Unit: 3679

sleeve to press the ribs into the deformations; wherein the bolts are driven into the bars; and the bolts pull together generally parallel flanges of the sleeve, tightening the sleeve segment around the joined bars; and wherein the clamp includes bolts that pass through threaded bolt holes in the sleeve. Hope teaches a clamp (Figs 1, 2) having plural bolts (11) that pass through threaded bolt holes (12) in the sleeve (6); wherein the bolts (11) are driven into the bars (3); and wherein the bolts (11) pull together generally parallel flanges of the sleeve (12) which capable of tightening a sleeve segment around the joined bars; and wherein the clamp includes bolts (11) that pass through threaded bolt holes (12) in the sleeve (6). It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the splice of Minamoto et al. with bolts as taught by Hope in order to center and fix locating the adjacent end portions of the reinforcing bars relative to sleeve.

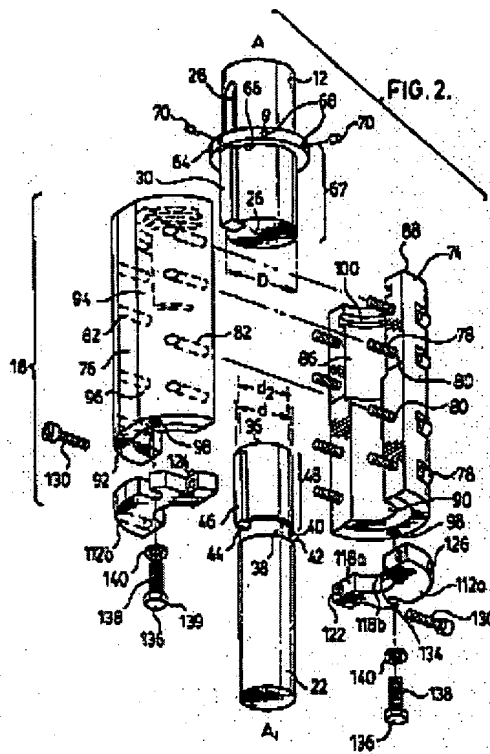


Claims 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minamoto et al. and Holdsworth as applied to claims 18, 21, 22, 25, and 29 above, and further in view of US Patent No. 6,824,471 B2 Kamenov.

With respect to claim 26, Minamoto et al. disclose the claimed invention except that the sleeve includes a pair of sleeve halves; and wherein the bolts pass through one of the sleeve halves and into the other of the sleeve halves, thereby pulling the sleeve halves together and

Art Unit: 3679

tightening the sleeve segment around the joined bars. Kamenov teaches a sleeve (Fig. 2) includes a pair of sleeve halves (74, 76); and wherein the bolts (78) pass through one of the sleeve halves (74, 76) and into the other of the sleeve halves (74), thereby pulling the sleeve halves (74, 76) together. It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the sleeve of Minamoto et al. with a pair of sleeve halves and bolts pass through the pair of sleeve halves as taught by Kamenov in order to tighten two sleeve together and complete the assembly.



Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minamoto et al. as applied to claims 1-7, 12, 23, and 28 above, and further in view of US Patent No. 7,168,486 B2 Hackworth et al.

With respect to claim 27, Minamoto et al. disclose the claimed invention except that the sleeve includes a pair of sleeve portions that each have axially protruding fingers; and wherein, when the sleeve portions are forced axially toward one another, at least some of the fingers press inward when the fingers of one of the sleeve portions are interdigitated with the fingers of the

Art Unit: 3679

other of the sleeve portions. Hackworth et al. teach a sleeve (Fig. 1) includes a pair of sleeve portions (160, 162) that each have axially protruding fingers (170, 178); and wherein, when the sleeve portions (160, 162) are forced axially toward one another, at least some of the fingers (170) press inward when the fingers (178) of one of the sleeve portions (162) are interdigitated with the fingers (170) of the other of the sleeve portions (160). It would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the sleeve of the Minamoto et al. with a pair of sleeve portions that have axially protruding fingers as taught by Hackworth et al. in order to prevent inadvertent separation of the pair of sleeve portions from each other.

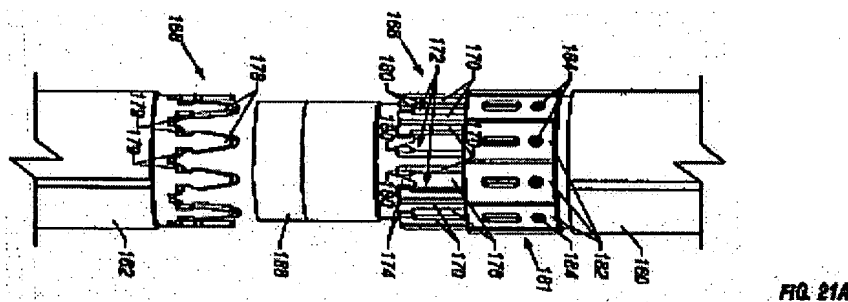


FIG. 21A

Claims 43, 44, and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minamoto et al.

With respect to claims 43, 44, and 47-49, Minamoto et al. disclose (Fig. 2) is advanced above with regard to claims 1-8 as disclosing a reinforcing bar splice for joining reinforcing bars. Minamoto et al. are silent with respect to the method of splicing reinforcing bars. However, it is noted that the only method steps recited merely provide the reinforcing bar splice and thus it appear that claims 43, 44, and 47-49 are merely reciting the system under the guise of a "method". Since Minamoto et al. have been shown to possess the structure of the reinforcing bar splice, it would have been obvious to one of ordinary skill in the art that this structure has been "provided".

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 3679


The prior art of record US Patent No. 1,156,582 Biggar; US Patent No. 6,251,111 B1 Barker et al.; US patent No. 4,616,949 Kellner; US Patent No. 6,532,711 B2 Gregel et al.; US Patent No. 7,093,402 B2 Hopwood; US Patent No. 3,850,535 Howlett et al.; US Patent No. 6,773,198 B2 Copping; US Patent No. 5,909,980 Holdsworth; US Patent No. 799,623 Augensen; and US Patent No. 4,143,446 Down; are cited to show an assembly of connecting a sleeve to a reinforcing bars.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nahid Amiri whose telephone number is (571) 272-8113. The examiner can normally be reached on 8:30-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nahid Amiri
Examiner
Art Unit 3679
September 22, 2007



ROBERT J. SANDY
PRIMARY EXAMINER